



**US Army Corps  
of Engineers®**

Engineer Research and  
Development Center

# Controlled-Image Base (CIB)

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## Description and Background

The National Imagery and Mapping Agency (NIMA) CIB is digital imagery produced to support mission planning and Command, Control, Communications and Intelligence (C<sup>3</sup>I) systems. CIB will be used as a map substitute in the event that maps do not exist or are outdated.

## Key Capabilities

**Color Resolution:** CIB is panchromatic (greyscale) digital imagery.

**Content:** CIB is produced from either stereo or mono National Technical Means (NTM) or other adequate source (commercial) that has been orthorectified using NIMA Digital Terrain Elevation Data Level 1 (DTED Level 1). Currently, CIB is being produced at 5-meter (unclassified) and 1-meter (secret) resolutions, though legacy SPOT-based 10-meter CIB remains available. In unique cases, 5-meter CIB may be classified.

**Structure and Format:** CIB is Raster Product Format (RPF) and National Imagery Transmission Format Suite-compliant.

**Datums:** World Geodetic System 1984 (WGS 84).

**Media:** Standard distribution medium is CD-ROM, though 8 mm tape also may be used.

**Standard File Size:** Image frame sizes are standard (1,536 x 1,536 pixels 0.3 megabytes). This translates into real-world image sizes of 15,360 meters, 7,680 meters and 1,536 meters per image frame for 10-meter, 5-meter and 1-meter CIB, respectively. The number of image frames per 1-degree x 1-degree geocell is contingent on resolution and latitude.

**Horizontal Accuracy:** Target accuracy is 23 meters (75 feet) at 90 percent circular error for all resolutions of CIB due to the use of DTED Level 1 in the orthorectification process. Any nonstandard CIB may have lower accuracy.

**Packaging:** 10-meter CIB: Twenty-Four 1-degree x 1-degree geocells per CD-ROM

5-meter CIB: Six 1-degree x 1-degree geocells per CD-ROM

1-meter CIB: One 24' Latitude by 36' Longitude section per CD-ROM

## Current Status

In July 1994, the CIB prototype was released. In August 1995, production commenced with the conversion of 2,460 former Air Force ADRI (SPOT/Pan SPOT, 10-meter resolution) cells available on 153 CD-ROMs. Currently, NIMA is using NTM source to produce 13,000 cells (out of 19,520 that make up the Earth's landmass) at 5-meter resolution by 2001.

This number is restricted because there are large areas of the world that lack either DTED or cloud-free coverage. NIMA also plans to use DTED Level 2 in the orthorectification process as it becomes more universal.

## Point of Contact

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